



What is a VPN And How Does it Work?

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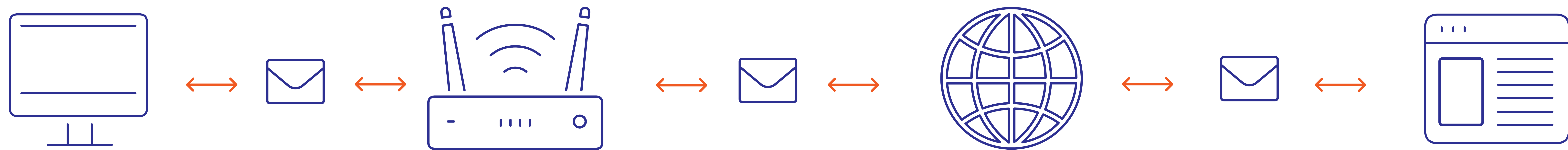
The internet can be a hostile place. Connections made to open WiFi networks, such as those at airports or coffee shops, can be observed by anyone within range, leading to stolen passwords, banking credentials and compromised personal data. At the same time, internet service providers (ISP) and other institutions are collecting data about your internet activity and selling it to advertisers.

To understand what a Virtual Private Network (VPN) is and how it works, we need to explain the relationship between a device, such as a computer, a router, the internet and a website that's connected to it.



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Below is a simplified illustration of the components that allow you to access the internet and visit websites, such as Facebook.com. Here we have a computer, a wireless router, the internet, a website and envelopes which represent packets.



Typically, a computer will connect to the router via a WiFi signal. The router then connects to the internet along with the website. The packets are your requests to visit a webpage. They are the digital equivalent of a letter, and include a ‘from’ address, a ‘to’ address and a message, such as “can I have access to John’s

Facebook profile?”. Once a request has travelled through the network and has been received by the website, it will reply with its own packet, which in this example would be access to John’s Facebook page. This is an example of a typical connection where

the packets sent by you through the network to Facebook.com can be captured by your ISP. Worse still, if you’re connected to an insecure WiFi hotspot, these packets and the information within can be “sniffed” by anyone sitting on the network, such as a cybercriminal.





In simple terms, a VPN uses a regular internet connection to open up a new connection with the VPN provider through which your traffic passes. This is often imagined as a private tunnel between one computer and another. With a VPN installed on your device, your traffic is now fully encrypted, meaning your data can travel securely over the internet without an ISP or cybercriminal intercepting it.

The benefits of using a VPN are rich. They are great for secure file and data transfers and for bypassing content filters set by ISPs. They also help to prevent organisations from capturing and selling your data. Best of all, they give you peace of mind.

